

12-15 smooth scales from eye to eye across the forehead; rostral with angular horizontal edge; scales in 47-53 rows ..... *G. thebaicus*, Reuss.

B. Scales smooth, in 41-45 rows; tail ending in a curved, claw-like scute; 5 smooth scales from eye to eye across the forehead. *G. Muelleri*, Blgr.

XI.—*Descriptions of Three new Gerbilles in the British Museum Collection.* By OLDFIELD THOMAS.

*Gerbillus calurus*, sp. n.

Size medium. Ears rather large, laid forward they reach 1 millim. in front of the anterior canthus of the eye. Mammæ, as usual, 2—2=8. Palms naked, with the usual five pads, the two large basal ones subequal in size. Soles quite naked, the proximal halves smooth and shining, the distal halves very coarsely granulated and bearing six large and prominent pads. Tail considerably longer than the head and body, even without its terminal tuft of hairs; coarsely scaly, the rings of scales averaging about fourteen to the centimetre; thickly clothed all round with long coarse hairs 13 to 18 millim. in length from within an inch of its base to its tip, the whole tail being as bushy as in many *Myoxidæ*; its colour apparently has been a dark rich brown or black throughout its length, except at its tip, where the terminal half-inch is white or yellow.

Colour of the body apparently as usual in the genus, yellowish or rufous above and whitish below, but, like the colours of the tail, they must be taken with great reservation, as the only specimen is in a very bad condition and has been at least fifty years in spirit.

Skull with a long, slender muzzle, narrow interorbital region, large bullæ, whose posterior portion is much swollen and appears in an upper view of the skull, and projects posteriorly just beyond the level of the occipital bone.

Upper incisors bevelled, with a single deep groove. Molars of the type so worn that the three laminae of  $\underline{m}^1$  are connected by two central bridges; these two bridges are, however, not directly in front of one another, the anterior being at a markedly more internal level than the posterior. As far, however, as can be judged in the present state of wear, the teeth are decidedly those of *Gerbillus* (*s. s.*), and not of the *Meriones* section of the group. Laminae as usual 3—2—1

both above and below ; the last molar nearly circular in each case.

Dimensions of the type (an adult female in spirit) :—Head and body 113 millim. ; tail, without hairs, 152 ; hind foot 31 ; ear (above crown) 15.

Skull : basal length 31 ; greatest length, from tip of nasals to occiput, 37 ; greatest breadth, at anterior edge of auditory meatus, 19·6 ; zygomatic breadth 19·2 ; nasals, length 14·5, greatest breadth 3·4 ; interorbital breadth 5·7 ; interparietal, length 4, breadth 8·7 ; least distance between posterior portions of bullæ across occiput 7·9 ; length of anterior zygoma-root 5·5 ; palate, length 19·4, diastema 9·5, palatal foramina 6·8 ; length of upper molar series 5 ; greatest diameter of bullæ 14·5 ; greatest vertical height of brain-case and bulla combined 13·8.

*Hab.* Unknown.

The type specimen of this species has been in the Museum at least since 1837, and probably considerably longer, for about that date it was entered by Dr. Gray in the first manuscript list of the then Museum collection of rodents in spirit ; and even then its history seems to have been already forgotten, as it is merely entered as “22. a. *Sciurus*,” the localities, donors, &c. being in other cases entered in the same list. It is noteworthy that so distinct a species has never turned up since.

*G. calurus* is a most striking and remarkable species, differing from every other member of the group by its evenly bushy tail, which more resembles that of one of the larger Myoxidæ or smaller Sciuridæ than that of a Gerbille. This last resemblance is curiously exemplified by Dr. Gray's entry of the specimen already referred to. In addition only some three or four other species, and these quite small ones, half the size of *G. calurus*, have six posterior foot-pads. They are all African, and there is every probability that *G. calurus* also comes from that continent, as the Asiatic species all have palms and soles of quite a different character.

#### *Gerbillus gracilis*, sp. n.

Size rather small, form slender and graceful. Ears large, rounded, laid forward they reach to the anterior canthus of the eye. Palms and soles as in *G. indicus*, *leucogaster*, *afar*, and others, viz. naked, the palms granulated and with five pads, the soles smooth posteriorly, granulated anteriorly, and with four small pads. Tail slender, thinly hairy, but little pencilled terminally.

General colour above bright rich rufous, darker along the centre of the back, clearer and richer on the sides. Under surface from nose and cheeks to anus, forearms all round, hands and feet, white, the line of demarcation sharply marked.

Tail brown above, dull yellow on the sides and below; the lengthening of the upper brown hairs forming the usual crest and pencil commencing on the proximal third of the tail.

Skull narrow, but with rather a stout muzzle; its general form more Murine than Meriones-like, as the posterior part is narrow, and no part of the bullæ show in a vertical view of the skull. These latter are small, oval, and have their mastoid portion scarcely swollen at all.

Teeth: upper incisors very much bevelled, with a single deep groove. Molars markedly Gerbilline in the strictest sense, their laminae low, separate from each other, and evidently each originally composed of two cusps, with the usual exceptions of the anterior lamina of the first and the posterior of the last molar.

Dimensions of the type (an adult male in spirit):—Head and body 92 millim.; tail 134; hind foot 29; ear 15·5.

Skull: basal length 25·5; greatest length from tip of nasals to occiput 32; zygomatic breadth 15·7; breadth at anterior edge of auditory meatus 14·9; nasals, length 12·4, greatest breadth 3·2; interorbital breadth 5·9; interparietal, length 4·4, breadth 8·5; length of anterior zygoma-root 5·1; palate, length 16·2, diastema 7·7, palatal foramina 5·0; length of upper molar series 5·1; greatest diameter of bulla 10; vertical height of brain-case and bulla combined 12·2.

*Hab.* Gambia.

Type specimen (85. 2. 2. 1) collected and presented to the Museum by Sir C. A. Moloney.

This pretty little species appears to be most nearly allied to *G. leucogaster*, Peters, which is found from Mozambique across to Angola, and to the Algerian *G. garamantis*, Lataste. The former of these, however, is considerably larger than *G. gracilis*, while the latter, besides being much smaller, has five instead of only four hind foot-pads.

*Gerbillus Emini*, sp. n.

Size slightly larger than in *G. gracilis*, markedly smaller than in the large species and larger than in the small ones described by Sundevall, Heuglin, and others from the same region.

Colour above a soft brownish fulvous, finely grizzled with black, paler on the sides. Lower surface, hands, and feet, as usual, pure white.

Tail longer than the head and body, brown above, pencilled with black terminally, orange-rufous on the sides and below. Palms and soles with the essential characters of those of *G. gracilis*, *leucogaster*, &c., *i. e.* naked, with five anterior and four posterior pads, but distinguished from all the species of this group by the fact that a band (about 4 millim. broad) of fine hairs passes across the soles at about the level of the base of the hallux. Skin of soles black.

Skull very much as in *G. gracilis*. Bullæ small, egg-shaped, their posterior part scarcely swollen.

Teeth: upper incisors much bevelled, each with one deep groove. Molars with the low, distinct, directly transverse laminae characteristic of this group of Gerbilles.

Dimensions of the type (an adult specimen in skin):—Head and body 140 millim.; tail 155; hind foot 29.

Skull: basal length 30; greatest length 35; tympanic breadth 16.5; nasals, length 14, breadth 3.7; interorbital breadth 6; interparietal, length 4, breadth 8.5; palate, length 18.5, diastema 10, palatal foramen 6.1; length of upper molar series 5.2; greatest diameter of bullæ 10.4; vertical height of brain-case and bullæ combined 13.5.

*Hab.* Wadelai.

Type (87. 12. 1. 50) collected and presented by Dr. Emin Pasha.

A second specimen, collected at the same time and place, agrees in every respect with the type.

These two specimens were presented to the Museum with Emin Pasha's first collection (see P. Z. S. 1888, p. 10, no. 24). Turning out now to be new, it is only just that they should receive the name of their distinguished discoverer.

## XII.—*The Mesozoon Salinella*.

By JOHANNES FRENZEL\*.

It is a well-known fact that between unicellular and multicellular animals there hitherto stretched a gulf which was wider than that between the vegetable and animal kingdoms, for indeed the two latter, in spite of the advances which we have made in knowledge, are even to-day hardly separable from one another. The unicellular animals, usually comprised under the name Protozoa, and embracing besides many doubtful forms of the Protista, not only consist, as their name

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